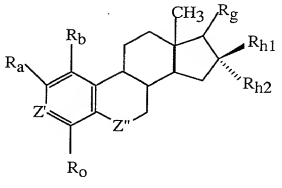
CLAIMS

We claim:

1. A compound of the general formula:



wherein:

a) R_b and R_o are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH_2-OH, -NH_2; or N(R6)(R7), wherein R6 and R7 are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;

b) R_a is -N_3, -C ≡ N, -C ≡ C - R, -C=CH-R, -R-C=CH_2, -C≡CH, -O-R, -R-R_1, or -O-R-R_1 where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R_1 is -OH, -NH_2, -Cl, -Br, -I, -F or CF_3;

c) Z' is >CH, >COH, or >C-R_2-OH, where R_2 is an alkyl or branched alkyl with up to 10 carbons or aralkyl;

d) >C-R_g is >CH_2, >C(H)-OH, >C=O, >C=N-OH, >C(R_3)OH, >C=N-OR_3, >C(H)-NH_2, >C(H)-NHR_3, >C(H)-NR_3R_4, or >C(H)-C(O)-R_3, where each R_3 and R_4 is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl;

e) R_{h1} and R_{h2} are independently H, or a straight or branched chain alkyl, alkenyl or alkynyl with up to 6 carbons that is

unsubstituted, or substituted with one or more groups selected from a hetero functionality (O-Y, N-Y or S-Y) where Y is H, Me or an alkyl chain up to 6 carbons; a halo functionality (F, Cl, Br or I); an aromatic group optionally substituted with hetero, halo or alkyl; or R_{h1} and R_{h2} are independently an aromatic group optionally substituted with hetero, halo or alkyl, provided that both R_{h1} and R_{h2} are not H;

f) Z" is $>CH_2$, >C=O, >C(H)-OH, >C=N-OH, $>C=N-OR_5$, $>C(H)-C\equiv N$, or $>C(H)-NR_5R_5$, wherein each R_5 is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl;

and wherein all monosubstituted substituents have either an α or β configuration.

2. The compound of Claim 1, wherein :
R_b and R_o are H,
R_a is OCH_3
Z' is >C-OH,
$>C-R_g$ is >C(H)-ß-OH, and
Z" is $>CH_2$.

3. The compound of Claim 2, wherein :
R_{h1} and R_{h2} are independently H and Et.

4. The compound of Claim 2, wherein:
R_{h1} and R_{h2} are independently H and n-Pr.

5. The compound of Claim 2, wherein:
R_{h1} and R_{h2} are independently H and i-Bu.

6. The compound of Claim 2, wherein:

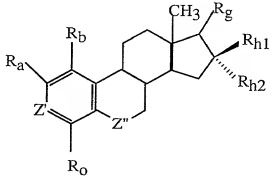
R_{h1} and R_{h2} are independently H and CH_2OH.

7. The compound of Claim 2, wherein :
R_{h1} and R_{h2} are independently H and n-Bu.

8. The compound of Claim 2, wherein :
R_{h1} and R_{h2} are independently H and Me.

9. The compound of Claim 2, wherein :
R_{h1} and R_{h2} are independently H and $(CH_2)_n$-$C(Me)_2$.

10. A method of inhibiting angiogenesis comprising administering to an endothelial cell an angiogenesis inhibiting amount of a compound of the general formula:



wherein:

a) R_b and R_o are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH_2-OH, -NH_2; or N(R6)(R7), wherein R6 and R7 are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;

b) R_a is -N_3, -C≡N, -C≡C-R, -C=CH-R, -R-C=CH_2, -C≡CH, -O-R, -R-R_1, or -O-R-R_1 where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R1 is -OH, -NH_2, -Cl, -Br, -I, -F or CF_3;

c) Z' is >CH, >COH, or >C-R_2-OH, where R_2 is an alkyl or branched alkyl with up to 10 carbons or aralkyl;

d) >C-R_g is >CH_2, >C(H)-OH, >C=O, >C=N-OH, >C(R_3)OH, >C=N-OR_3, >C(H)-NH_2, >C(H)-NHR_3, >C(H)-NR_3R_4, or >C(H)-C(O)-R_3, where each R_3 and R_4 is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl;

e) R_{h1} and R_{h2} are independently H, or a straight or branched chain alkyl, alkenyl or alkynyl with up to 6 carbons that is unsubstituted, or substituted with one or more groups selected from a hetero functionality (O-Y, N-Y or S-Y) where Y is H, Me or an alkyl chain up to 6 carbons; a halo functionality (F, Cl, Br or I); an aromatic group optionally substituted with hetero, halo or alkyl; or R_{h1} and R_{h2} are independently an aromatic group optionally substituted with hetero, halo or alkyl, provided that both R_{h1} and R_{h2} are not H;

f) Z" is >CH_2, >C=O, >C(H)-OH, >C=N-OH, >C=N-OR_5, >C(H)-C≡N, or >C(H)-NR_5R_5, wherein each R_5 is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl;

and wherein all monosubstituted substituents have either an α or β configuration.